

Summer Ozone Warnings Get A Color Scheme

Ozone is a major air pollution problem in Maryland. Maryland citizens suffer from more days of unhealthy amounts of ozone in our air than any other state in the eastern United States. The federal government's Clean Air Act requires the Baltimore area to reduce air pollution by a large amount by the year 2005. Air pollution controls on car exhaust, and on businesses and industries, are helping reduce ozone. While there were fewer ozone alerts in 1995 than there were in 1980, the problem continues and may again be growing as the state's population grows and the number of cars on the road increases. Ozone is a bigger problem in the more heavily populated areas of Maryland. Air sampling stations, many located at public schools, have been set up in the Baltimore region to check air quality. They sample ozone levels around the clock. Ozone is a colorless gas that is the main component of smog and it poses a health hazard. It can make colds worse, cause coughing and sore throats, and damage people's lungs and hearts. The Maryland Department of Environment created a chart to help citizens understand the ozone problem and the dangers to citizens' health. The chart lists some actions that can be taken to limit health related problems. "Code Red Alert," and other ozone warnings are often announced on TV and in newspapers. The Maryland Department of Environment operates an ozone information and action hotline at 800-539-6656, to answer citizen's questions.

NEW OZONE POLLUTION WARNING SYSTEM		
Air quality index code (AQI)	Weather conditions	Recommended actions
CODE RED Unhealthful AQI: 100 or more	Hot, hazy, humid; stagnant air; little chance of rain.	Children, elderly and people with heart or respiratory ailments should limit outdoor activities; limit driving; fuel cars after dusk.
CODE ORANGE Approaching unhealthful AQI: 89-99	Temperatures in upper 80s to low 90s; sunny.	Avoid using gas-powered lawn mowers, fuel cars at night; use well-maintained vehicles.
CODE YELLOW Moderate AQI: 51-88	Upper 70s to mid-80s; light to moderate wind.	Consolidate vehicle trips; limit idling; set air conditioners to 78 degrees.
CODE GREEN Good AQI: 0-50	Mild temperatures; wind, rain or cool front through area.	Use car pools or public transit; tune cars and boats; use safe paints and cleaners

Levels of Ozone During July 1995

Site: Padonia Elementary School

Ozone Measured in Parts Per Billion (PPB)

Hour of Day

	Day	Midnight												Noon			
		12:00	2:00	4:00	6:00	8:00	10:00	12:00	2:00	4:00	6:00	8:00	10:00				
Sat.	1	5	7	6	3	12	40	65	66	43	37	17	17				
Sun.	2	15	30	23	21	31	33	49	57	55	45	13	5				
Mon.	3	6	18	9	7	28	38	52	61	67	67	53	16				
Tues.	4	6	0	1	23	29	38	56	48	31	38	33	24				
Wed.	5	20	23	15	8	19	36	57	--	44	11	33	34				
Thur.	6	40	34	31	18	19	42	54	48	24	5	0	0				
Fri.	7	3	3	1	0	0	15	44	59	56	43	39	39				
	8	28	21	9	8	46	61	62	58	48	37	25	21				
	9	17	16	12	11	23	25	31	36	40	42	15	5				
	10	0	0	5	0	18	53	65	79	63	62	43	44				
	11	49	40	10	9	28	50	65	55	63	50	26	5				
	12	46	7	0	21	29	70	87	88	93	108	66	32				
	13	28	30	25	37	41	72	99	112	128	104	60	30				
	14	34	33	30	54	52	80	88	92	96	86	67	61				

DAY
OF
MONTH

Continued on following page.

Resource B: Levels of Ozone During July 1995 (Continued)

Hour of Day

Day	Midnight				Noon							
	12:00	2:00	4:00	6:00	8:00	10:00	12:00	2:00	4:00	6:00	8:00	10:00
15	51	41	39	37	73	92	99	100	118	94	58	57
16	71	50	55	54	58	65	87	94	84	69	39	49
17	43	37	32	14	23	59	104	124	121	74	42	29
18	29	21	17	10	36	59	70	70	72	60	36	19
19	25	27	29	10	48	58	67	64	64	53	25	8
20	4	6	1	3	19	68	99	85	80	64	17	11
21	6	12	2	3	29	62	83	91	78	66	34	9
22	7	9	5	14	52	82	96	71	82	70	46	14
23	9	4	13	36	38	54	73	70	66	54	19	14
24	14	6	3	3	41	58	88	81	58	42	17	4
25	2	1	1	3	26	59	72	97	89	51	45	33
26	33	34	17	13	36	63	63	66	72	61	43	48
27	37	50	16	9	18	67	104	103	78	46	46	26
28	38	22	29	12	17	32	79	69	51	29	9	4
29	7	10	15	14	27	60	72	74	77	69	54	23
30	31	25	22	37	57	70	78	78	82	67	25	11
31	9	6	3	4	21	63	80	86	99	85	38	19

average 23 19 15 13 32 56 74 76 72 58 35 28

MAXIMUM 71 50 55 54 73 92 104 124 128 108 67 61

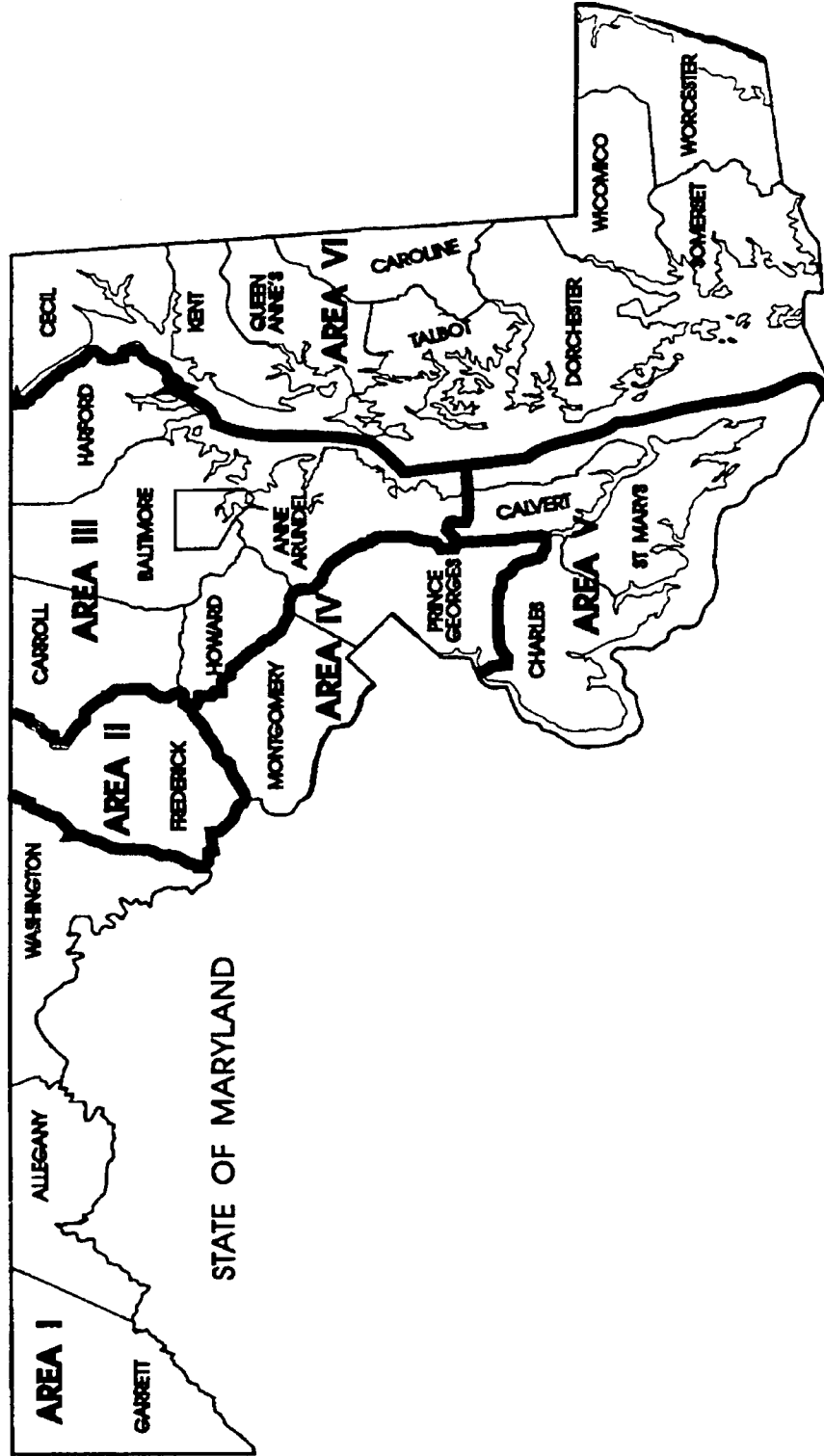
Resource C

Ozone Violation Days In Maryland

YEAR	AREA I	AREA II	AREA III	AREA IV	AREA V	AREA VI	STATE- WIDE
1980	0	1	41	17		8	44
1981	0	1	18	9		0	19
1982	0	0	15	4		0	15
1983	0	1	41	22		0	43
1984	1	0	17	7		0	18
1985	0	0	11	4	0	0	13
1986	0		13	5	0	0	17
1987	0		23	12	4	0	23
1988	1		36	21	11	0	36
1989	0		4	1	0	1	4
1990	0		10	3	0	1	11
1991	0		15	4	1	6	17
1992	0		3	0	1	1	5
1993	0		11	4	1	6	16
1994	0		10	3	0	0	11
1995			12	3	1	4	12

Through 8/2/95

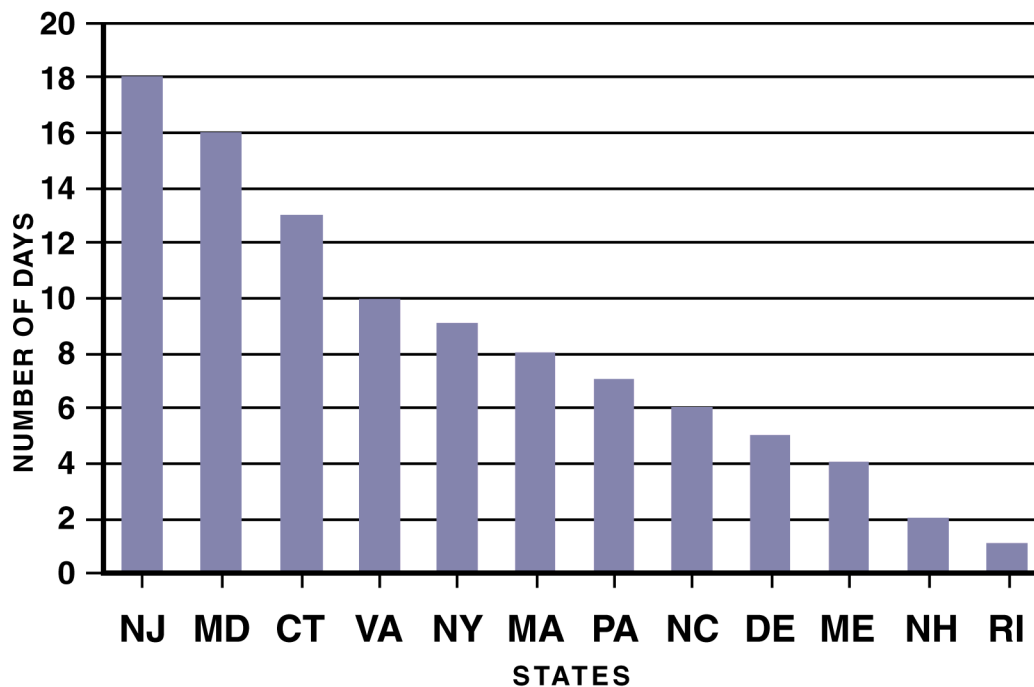
Resource C (Continued)



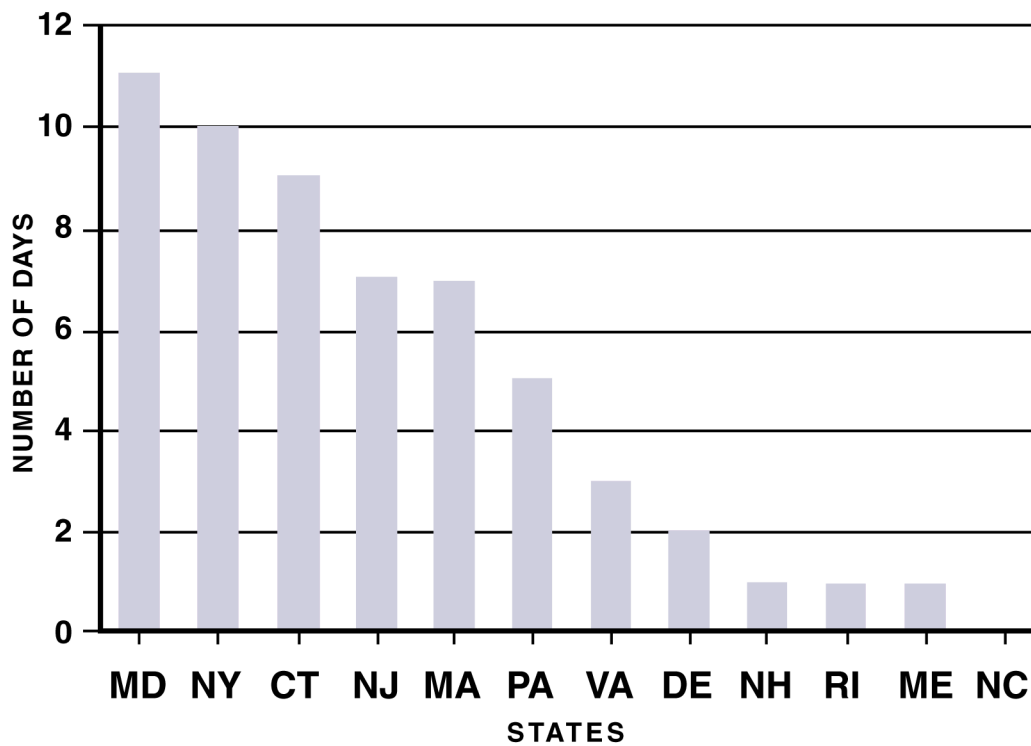
Resource D

EASTERN STATES EXCEEDING OZONE STANDARD

1993 Ozone Season



1994 Ozone Season



Resource B

Ground Level Ozone

- Ground level ozone is a serious air quality problem in Maryland. From 1988 through 1995, Maryland's air was worse than the federal health standard on 114 days because of ozone pollution.
- Ozone is a major part of urban smog. Ozone can lower resistance to diseases such as colds and pneumonia, damage lung tissue, make heart and lung disease worse, and cause coughing and throat irritation.
- Young children, the elderly, and people with lung problems like emphysema, asthma, or bronchitis are especially sensitive to the effects of ozone.
- Even healthy adults who are doing heavy physical exercise can feel the unhealthy effects of ozone.

What is ozone?

Ozone is a colorless gas that can be found in the air we breathe. Ozone is found naturally very high in Earth's atmosphere, where it serves to shield us from harmful ultraviolet radiation. However, ozone found close to the ground, called ground level ozone, is considered an air pollutant.

Where does ground level ozone come from?

Ozone is formed by a chemical reaction between waste gases from cars and industry and sunlight. Dry cleaners, paints, and insecticides are other sources of these gases. Ozone can become especially bad when the weather is hot and sunny with little or no wind. High ground level ozone levels usually happen between 1:00 pm and 7:00 pm from May to September.

How does ozone affect people?

High amounts of ozone can hurt your ability to breathe. This is especially true during heavy physical activity, like running, working hard, or exercising. Inhaling ozone can damage your lungs and worsen asthma. Medical studies have shown that the effects can last for many days.

How does ozone affect plant life?

Many scientific studies show that ozone harms plants. A 1992 study by the University of Maryland found that ozone was reducing crop yields by 40 million dollars per year in Maryland. Ozone pollution also harms forests by causing early leaf drop and lower growth rates.

Ozone Information and Action Hotline
800-539-6656



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